

WHAT IS CLAIMED IS

1. A porous polyester film comprising a fine porous layer (Layer A) having a ratio of the number of voids to film thickness of not less than 0.20 void/ μm .

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2. The porous polyester film of claim 1, comprising a polyester layer (Layer B) containing white pigment particles in a proportion of 5 - 45 wt% of the layer, which is laminated on either or both surfaces of Layer A by coextrusion.

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3. The porous polyester film of claim 1 or claim 2, wherein the film has an apparent specific gravity of the entire film of not more than 1.25.

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4. The porous polyester film of claim 1 or claim 2, wherein the film has an apparent specific gravity of the entire film of not less than 0.85.

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5. The porous polyester film of claim 2, wherein a surface of Layer B has a dynamic hardness of not more than 5.0 gf/cm².

6. The porous polyester film of claim 2, wherein the surface of Layer B has a 60° specular glossiness of not less than 20%.

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7. The porous polyester film of claim 1, wherein Layer A comprises a thermoplastic resin incompatible with the polyester resin.

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8. The porous polyester film of claim 7, wherein the incompatible thermoplastic resin is a polystyrene resin.

9. The porous polyester film of claim 7, wherein the incompatible thermoplastic resin comprises a polystyrene resin and a polyolefin resin.

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10. The porous polyester film of claim 9, wherein a main component of the polyolefin resin is a polymethylpentene resin.

11. The porous polyester film of claim 9, wherein a melt viscosity η_0 of a main component of the polyolefin resin and a melt viscosity η_s of the polystyrene resin satisfy the following formula (I)

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$$\eta_0/\eta_s \leq 0.8 \quad (I)$$

12. The porous polyester film of claim 2, wherein the white pigment particle is titanium oxide.

10 13. The porous polyester film of claim 10, wherein the incompatible thermoplastic resin content satisfies the following formulas (III) and (IV)

$$0.01 \leq P_s/P_o \leq 1.0 \quad (III)$$

$$2 \leq P_t \leq 15 \quad (IV)$$

15 wherein P_o and P_s are each a content (unit: wt%) of polymethylpentene resin and polystyrene resin relative to the film as a whole, and P_t is a content (unit: wt%) of the incompatible thermoplastic resins relative to the film as a whole.

20 14. The porous polyester film of claim 1, wherein Layer A does not comprise polyethylene glycol or a derivative thereof.

25 15. The porous polyester film of claim 1, which has a spectral reflectance to a light having a wavelength of 450 nm of not less than 98%.

30 16. The porous polyester film of claim 1, wherein an absolute value of the difference in spectral reflectance between one surface and the other surface of the film, to a light having a wavelength of 450 nm is less than 6.0%.

17. The porous polyester film of claim 1, wherein Layer A has a white pigment particle content of not more than 5 wt%.

35 18. The porous polyester film of claim 1, which is used as a member of a display reflector.

19. The porous polyester film of claim 1, which comprises a self-

recyclable material in a proportion of not less than 20 wt%.

20. The porous polyester film of claim 1, which comprises a release layer mainly comprising a curable silicone resin on at least one surface of the film.

21. The porous polyester film of claim 1, which is made from a composition comprising the polyester resin and a thermoplastic resin incompatible with the polyester resin, wherein the film contains a number of voids formed by the incompatible thermoplastic resin dispersed in the polyester resin in a fine particle state, the polyester resin satisfies the following (a), and the film satisfies the following (b) and (c):

(a) cyclic trimer content (wt%): not more than 0.5 wt% of the entire film

(b) apparent specific gravity: $0.95 - 1.30 \text{ g/cm}^3$

(c) retention of elongation after heat treatment ($140^\circ\text{C} \times 1000 \text{ hours}$): not less than 20% in both the longitudinal direction and transverse direction of the film.

22. The porous polyester film of claim 21, which is used for an electric insulating purpose.